

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059764 A1

(51) International Patent Classification⁷: **G06F 13/16**

(74) Agent: **THIES, Stephan**; Deutsche Thomson-Brandt GmbH, European Patent Operations, Karl-Wiechert-Allee 74, 30625 Hannover (DE).

(21) International Application Number:
PCT/EP2004/012940

(22) International Filing Date:
15 November 2004 (15.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10357697.5 9 December 2003 (09.12.2003) DE
10 2004 009 428.4
24 February 2004 (24.02.2004) DE

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **THOMSON LICENSING S.A.** [FR/FR]; 46 Quai A. le Gallo, F-92100 Boulogne-Billancourt (FR).

(72) Inventors; and

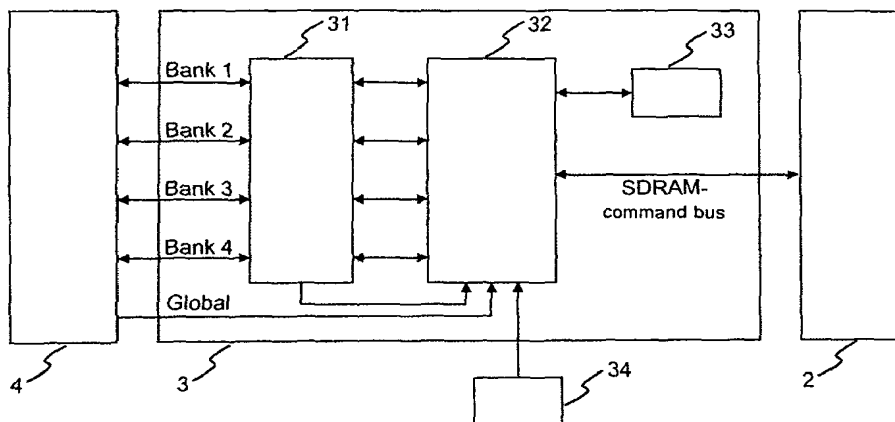
(75) Inventors/Applicants (*for US only*): **NIGGEMEIER, Tim** [DE/DE]; Stettiner Str. 17, 30880 Laatzen (DE). **BRUNE, Thomas** [DE/DE]; Konkordiastr. 15, 30449 Hannover (DE). **FREISSMANN, Lothar** [DE/DE]; Beroldinger Str. 8, 78078 Nidereschach (DE).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MEMORY CONTROLLER



(57) Abstract: The present invention relates to a memory controller (1) for an IC with an external DRAM (2), where the external DRAM (2) has at least one memory bank (21, 22, 23, 24) and communicates with the IC via at least one channel (6, 7, 8). In line with the invention, the memory controller (1) has a command scheduler (3) which prioritizes the transmission of memory bank commands on the basis of a static priority allocation for commands and a dynamic priority allocation for channels.

WO 2005/059764 A1